

WHAT IS CLAIMED IS:

1. A container, comprising:

a base;

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, and (vi) a pair of receptacles, wherein each receptacle comprises a kidney shaped opening, the kidney shaped opening formed between a receptacle upper surface and a receptacle projection, the receptacle projection extending downwardly and outwardly from a portion of the kidney shaped opening closest to the respective opposing endwall; and

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of the opposing wall, (ii) a pair of crank members located adjacent to the inwardly turned portions, and (iii) an engaging portion located between the pair of crank members,

wherein when the engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position, and

the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position.

2. The container according to claim 1, further comprising:

(ii) a recessed portion recessed inwardly from the outer opposing wall surface, each recessed portion including a top edge of the corresponding receptacle and the corresponding outer notch.

3. The container according to claim 1, further comprising:
a paper sticking preventing structure.

4. The container according to claim 3, wherein the paper sticking preventing structure comprises:
a plurality of micro-bumps on a plurality of surfaces of the container.

5. The container according to claim 4, wherein the plurality of surfaces comprises:
a plurality of endwall exterior and interior surfaces; and
a plurality of bail arms.

6. The container according to claim 1, further comprising:
one or more bail arm locks.

7. The container according to claim 6, wherein the one or more bail arm locks are located on the sidewall top portion.

8. The container according to claim 1, further comprising:
a plurality of air flow passages.

9. The container according to claim 1, wherein the plurality of airflow passages comprises:
a first passage formed by a pair of endwall lower handles and a plurality of retail meat trays, wherein the retail meat trays comprise an angled tray lip, two of the angled tray lips meeting together to form the first passage between the endwall lower handles; and
a second passage formed by a pair of sidewall lower handles and a plurality of retail meat trays, wherein the retail meat trays comprise angled tray lips, to of the angled tray lips meeting together to form the second passage between the sidewall lower handles.

10. A container, comprising:

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top wall portion, (ii) a sidewall interior surface, and (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, and (vi) a pair of receptacles, wherein each receptacle comprises an opening;

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of the opposing wall, (ii) a pair of crank members located adjacent to the inwardly turned portions, and (iii) an engaging portion located between the pair of crank members,

wherein when the engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position, and

the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position; and

a base comprising an inner and outer pair of bail arm stacking grooves, wherein the inner and outer pair of bail arm grooves each comprises a cut-away tube shape across the base that is substantially semi-circular, wherein when the bail arms are placed in the inner set of notches of the opposing walls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position by positioning the inner pair of bail arm stacking grooves of the second identical container upon the bail arms of the first container; and when the bail arms are placed in the outer set of notches of the opposing walls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position by the same arms of the first identical container in the outer pair of bail arm stacking grooves of the second identical container.

11. A container, comprising:

a base;

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top wall portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, (vi) at least one interior step surface and at least one exterior step surface and corresponding interior and exterior step ledges substantially orthogonal to their respective interior and exterior step surfaces, wherein the corresponding combinations of interior step surfaces and step ledges and exterior step surfaces and step ledges are configured to provide support for a second identical container nested in the container by supporting a second exterior step ledge upon an interior step ledge, and wherein each of the pair of opposing sidewalls further comprises (vii) a pair of receptacles, and wherein each receptacle comprises an opening; and

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of the opposing wall, (ii) a pair of crank members located adjacent to the inwardly turned portions, and (iii) a first engaging portion located between the pair of crank arms,

wherein when the first engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position, and

the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position.

12. A container, comprising:

a base;

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top wall portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) at least one container stacking structure comprising a foot portion, at least one reinforcing rib, and a ledge portion connected substantially orthogonally to the reinforcing rib, (v) at least one container stacking structure receptacle comprising a sufficiently sized hole in each of the pair of opposing sidewalls to receive the container stacking structure, and

wherein, when a second container is fully nested into a first container, the foot portion, the at least one reinforcing rib, and the ledge portion of the second nested container fits within the first container's container stacking structure receptacle, such that the foot portion of the second nested container rests upon the ledge of the first container, and

each of the pair of opposing sidewalls still further comprising (vi) an outer pair of notches extending downwardly from the corresponding sidewall top portion, and (vii) an inner pair of notches extending downwardly from the corresponding sidewall top portion, and wherein each of the opposing sidewalls further comprises (viii) a pair of receptacles, and wherein each receptacle comprises an opening; and

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of each of the pair of opposing sidewalls, (ii) a pair of crank members located adjacent to the inwardly turned portions, and (iii) an engaging portion located between the pair of crank members, and

wherein when the engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position, and

the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position.

13. A container, comprising:

a base layer;

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top wall portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, and (vi) a pair of receptacles, and wherein each receptacle comprises a kidney shaped opening, the kidney shaped opening formed between a receptacle upper surface and a receptacle projection, the receptacle projection extending downwardly and inwardly from a portion of the kidney shaped opening closest to the respective opposing endwall; and

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of each of the pair of opposing sidewalls, (ii) a pair of crank members located adjacent to the inwardly turned portions, and (iii) an engaging portion located between the pair of crank members,

wherein when the first engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position,

the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position; and wherein

each receptacle further includes a smooth interior surface such that bail arm can easily move from one nesting position to another without substantial obstruction.

14. A container, comprising:

a base;

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion, and each of the pair of the opposing endwalls further comprising (v) an endwall upper handle that extends from the endwall interior surface through the endwall exterior surface, and (vi) an endwall lower handle that extends from the endwall interior surface through the endwall exterior surface;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top wall portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, and (vi) a pair of receptacles, and wherein each receptacle comprises an opening, and each of the pair of opposing sidewalls still further comprising (vii) a sidewall upper handle that extends from the sidewall interior surface through the sidewall exterior surface, and (viii) a sidewall lower handle that extends from the sidewall interior surface through the sidewall exterior surface; and

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of each of the pair of opposing sidewalls, (ii) a pair of crank members located adjacent to the inwardly turned portions, and (iii) an engaging portion located between the pair of crank members, wherein when the engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position, the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position.

15. A container, comprising:

a base;

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top wall portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, and (vi) a pair of receptacles, and wherein each receptacle comprises a kidney shaped opening, the kidney shaped opening formed between a receptacle upper surface and a receptacle projection, the receptacle projection extending downwardly and inwardly from a portion of the kidney shaped opening closest to the respective opposing endwall;

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of each of the pair of opposing sidewalls, (ii) a pair of crank members located adjacent to the inwardly turned portions, (iii) a first engaging portion located between the pair of crank members, and (iv) a platen at an inwardly disposed end of the inwardly turned portions, wherein when the first engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position, the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position, and further such that the platens are configured to provide additional loading strength for the container by resisting any outward movement by the inwardly turned portions of the bail arms when a second container is stacked on a first container.

16. A container, comprising:

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion, and each of the pair of the opposing endwalls further comprising (v) an endwall upper handle that extends

from the endwall interior surface through the endwall exterior surface, and (vi) an endwall lower handle that extends from the endwall interior surface through the endwall exterior surface;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top wall portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, (vi) at least one interior step surface and at least one exterior step surface and corresponding interior and exterior step ledges substantially orthogonal to their respective interior and exterior step surfaces, wherein the corresponding combinations of interior step surfaces and step ledges and exterior step surfaces and step ledges are configured to provide support for a second identical container nested in the container by supporting a second exterior step ledge upon an interior step ledge, (vii) at least one container stacking structure comprising a foot portion, at least one reinforcing rib, and a ledge portion connected substantially orthogonally to the reinforcing rib, (viii) at least one container stacking structure receptacle comprising a sufficiently sized hole in each of the pair of opposing sidewalls to receive the container stacking structure, and

wherein, when a second container is fully nested into a first container, the foot portion, the at least one reinforcing rib, and the ledge portion of the second nested container fits within the first container's container stacking structure receptacle, such that the foot portion of the second nested container rests upon the ledge of the first container, and wherein each of the opposing sidewalls further comprises

(ix) a pair of receptacles, wherein each receptacle comprises a kidney shaped opening, the kidney shaped opening formed between a receptacle upper surface and a receptacle projection, the receptacle projection extending downwardly and outwardly from a portion of the kidney shaped opening closest to the respective opposing endwall, and

wherein each receptacle further includes a smooth interior surface such that bail arm can easily move from one nesting position to another without substantial obstruction;

a pair of bail arms, each bail arm comprising (i) a pair of inwardly turned portions that are rotationally received within the corresponding receptacle of each of the pair of opposing sidewalls, (ii) a pair of crank members located adjacent to the inwardly turned portions, (iii) a first engaging portion located between the pair of crank members, and (iv) a platen at an inwardly disposed end of the inwardly turned portions, wherein when the first engaging portions of both bail arms are placed on the support surfaces of each

endwall top portion, the container is configured to stack a second identical container in nested position, the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position, and further such that the platens are configured to provide additional loading strength for the container by resisting any outward movement by the inwardly turned portions of the bail arms when a second container is stacked on a first container; and

a base comprising an inner and outer pair of bail arm stacking grooves, wherein the inner and outer pair of bail arm grooves each comprises a cut-away tube shape across the base that is substantially semi-circular, wherein when the bail arms are placed in the inner set of notches of the opposing walls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position by positioning the inner pair of bail arm stacking grooves of the second identical container upon the bail arms of the first container; and when the bail arms are placed in the outer set of notches of the opposing walls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position by the same arms of the first identical container in the outer pair of bail arm stacking grooves of the second identical container.

17. A method of stacking a plurality of containers according to an embodiment of the present invention, comprising:

determining whether to stack a second container in a fully nested configuration or a partially nested configuration or an un-nested configuration with respect to a first container;

(i) interfacing a container sidewall interlock system of the second container with a container sidewall interlock system of the first container if stacking the containers in either the fully nested configuration or the partially nested configuration;

(ii) interfacing a pair of bail arms on the first container with a pair of bail arms grooves on the second container if stacking the containers in either the partially nested configuration or an un-nested configuration; and

obtaining an additional container to stack and repeating steps (i) and (ii) with respect to the additional container and the previously stacked container until there are no remaining additional containers to be stacked.

18. A container, comprising:

a base;

a pair of opposing endwalls, each of the pair of opposing endwalls comprising (i) an endwall top portion, (ii) an endwall interior surface, (iii) an endwall exterior surface, and (iv) an endwall support surface located on the endwall top portion;

a pair of opposing sidewalls, each of the pair of opposing sidewalls comprising (i) a sidewall top portion, (ii) a sidewall interior surface, (iii) a sidewall exterior surface, (iv) an outer pair of notches extending downwardly from the corresponding sidewall top portion, (v) an inner pair of notches extending downwardly from the corresponding sidewall top portion, and (vi) a pair of receptacles, wherein each receptacle comprises a curved slot shaped opening, the curved slot shaped opening formed on a sidewall receptacle panel, the sidewall receptacle panel comprising a portion of the sidewall exterior surface, and wherein the slot shaped opening extends downwardly on the sidewall and inwardly from the closest endwall; and

a pair of bail arms, each bail arm comprising (i) a pair of outwardly turned portions that are rotationally received within the corresponding receptacle of the opposing sidewall, (ii) a pair of crank members located adjacent to the outwardly turned portions, and (iii) an engaging portion located between the pair of crank members,

wherein when the engaging portions of both bail arms are placed on the support surfaces of each endwall top portion, the container is configured to stack a second identical container in nested position, and

the bail arms being configured such that (i) when the bail arms are placed in the inner set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a first stacking position that is higher than the nested position, and (ii) when the bail arms are placed in the outer set of notches of each of the pair of opposing sidewalls, the container is configured to stack the second identical container in a second stacking position that is higher than the first stacking position.

19. An automated bail arm placement system, comprising:

a link arm assembly configured to interface with a plurality of bail arms on a plurality of containers;

a memory configured to store a set of instructions; and

a processor configured to process the set of instructions stored in the memory wherein the link arm assembly moves and interfaces with the plurality of bail arms, to move them from any position to any other position.

20. A method for automatically moving a plurality of bail arms on a plurality of containers, comprising:

locating a first container with the plurality of bail arms proximal to an automated bail arm placement system;

interfacing a link arm assembly with the plurality of bail arms on the first container; and

moving the plurality of bail arms from any position to any other position.